

8. (Twice Amended) A substrate having polymer probes coupled thereto, comprising:  
a plurality of regions on the substrate in which diverse polymer probes are coupled; and  
a plurality of regions on the substrate in which polymer probes having the same desired sequence are coupled, wherein the polymer probes having the same desired sequence will bind with a control sequence of monomers but the polymer probes are formed with at least one different monomer addition cycle and at least one of the polymer probes does not have the same actual sequence as a result of a different monomer addition cycle.

9. (Previously Amended) The substrate of claim 8, wherein the plurality of regions are at the center of the substrate.

10. The substrate of claim 8, wherein the plurality of regions are in a checkerboard pattern on the substrate.

11-23. (Canceled)

24. (Twice Amended) A substrate having nucleic acid probes coupled thereto, comprising:  
a plurality of regions on the substrate in which diverse nucleic acid probes are coupled; and  
a plurality of regions on the substrate in which nucleic acid probes having the same desired sequence are coupled, wherein the nucleic acid probes having the same desired sequence will bind with a control sequence of nucleotides but the nucleic acid probes are formed with at least one different nucleotide addition cycle and at least one of the nucleic acid probes does not have the same actual sequence as a result of a different nucleotide addition cycle.

25. The substrate of claim 24, wherein the plurality of regions are at the center of the substrate.

26. The substrate of claim 24, wherein the plurality of regions are in a checkerboard pattern on the substrate.